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(12) # EUROPEAN PATENT APPLICATION

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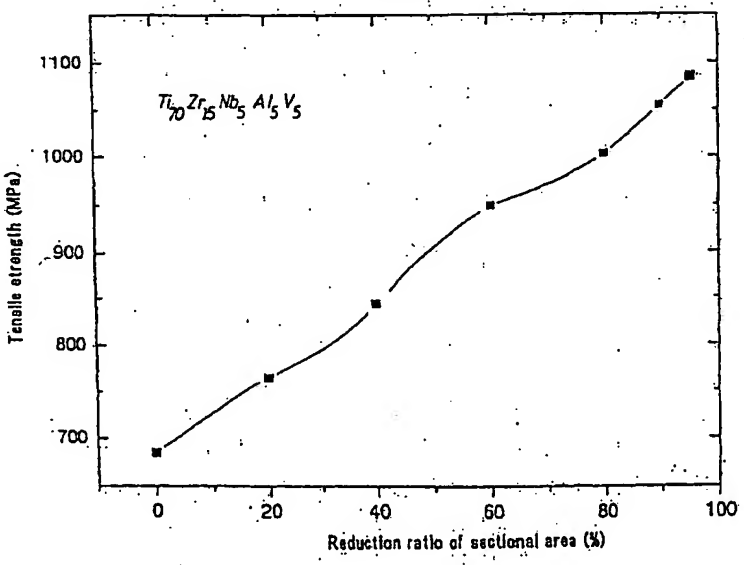
(54) **Titanium alloy**

(57) A titanium alloy having a composition represented by the chemical formula $Ti_{100-x}M1_x$, wherein M1 is at least one element selected from the group consisting of Zr, Hf, Nb, Ta and V, x is atomic % or the sum of atomic % of the element(s), and x is 20 to 80 atomic %; and a titanium alloy having a composition represented by the chemical formula $Ti_{100-x-y}M1_xM2_y$, wherein M1 is at least one element selected from the group consisting of Zr, Hf, Nb, Ta and V, x is atomic % or the sum of atomic % of the element(s), M2 is at least one element selected from the group consisting of Al, Sn, Mo, Cr, Ag, Au, Pd, Pt, Ni, Co, Fe, Si, Mn, B, Mm, Sc, Y, La, Ce, Pr, Nd and Sm, y is atomic % or the sum of atomic % of the element (s), and the sum of x and y is 20 to 80 atomic %.

Fig.1



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PARTIAL EUROPEAN SEARCH REPORT

which under Rule 45 of the European Patent Convention shall be considered, for the purposes of subsequent proceedings, as the European search report

Application Number EP 01 11 3184

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	I.J.POLMEAR: "Light Alloys" 1989 , EDWARD ARNOLD , GREAT BRITAIN XP002254245 034049 * page 215 *	1,3-9	C22C14/00 C22F1/18
X	DE 23 20 107 A (HITACHI LTD) 24 January 1974 (1974-01-24) * tables 1-4 *	1-9	
X	US 4 952 236 A (GUSTAVSON LARRY J ET AL) 28 August 1990 (1990-08-28) * table IX *	1,3-9	
X	PATENT ABSTRACTS OF JAPAN vol. 015, no. 197 (C-0833), 21 May 1991 (1991-05-21) & JP 03 053037 A (SUMITOMO METAL IND LTD), 7 March 1991 (1991-03-07) * abstract; table 1 *	1,3,5-9	
X	US 3 226 951 A (DE MALLIE HOWARD R ET AL) 4 January 1966 (1966-01-04) * table 2 *	1,3,5-9	TECHNICAL FIELDS SEARCHED (Int.Cl.7) C22C C22F

INCOMPLETE SEARCH

The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPO to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims.

Claims searched completely :

Claims searched incompletely :

Claims not searched :

Reason for the limitation of the search:

see sheet C

Place of search	Date of completion of the search	Examiner
MUNICH	11 September 2003	Brown, A

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

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INCOMPLETE SEARCH
SHEET C

Application Number
EP 01 11 3184

Claim(s) searched completely:
2

Claim(s) searched incompletely:
1, 3-13

Reason for the limitation of the search:

Present claim 1 relates to an extremely large number of possible alloys. Support within the meaning of Article 84 EPC is to be found, however, for only a very small proportion of the alloys claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the alloying elements disclosed in Table 1 of the application.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 01 11 3184

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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For more details about this annex ; see Official Journal of the European Patent Office, No. 12/82